
Biobanking in Ireland Review and Directory 2027





Science Delivered

Dedicated Life Science
Logistics Expertise



T +353 1 860 4890

E info@LifeSci.ie

W LifeSci.ie



The Chartered
Institute of Logistics
and Transport

Contents

1.0 Biobanks and Biobanking – Background

- 1.1 Introduction
- 1.2 What is a Biobank/Biobanking?
- 1.3 Key Components of Biobanking
- 1.4 Biobank Ireland Trust
- 1.5 Public Awareness
- 1.6 Regulation of Biobanking in Ireland
- 1.7 Biobanking, Clinical Trials and Precision Medicine
- 1.8 Biobanking in Other Countries
- 1.9 Biopharmaceutical Companies and Biobanks
- 1.10 Examples of Biopharma Investment in Biobanks

2.0 Current Biobanks in Ireland

3.0 Details of Irish Biobanks

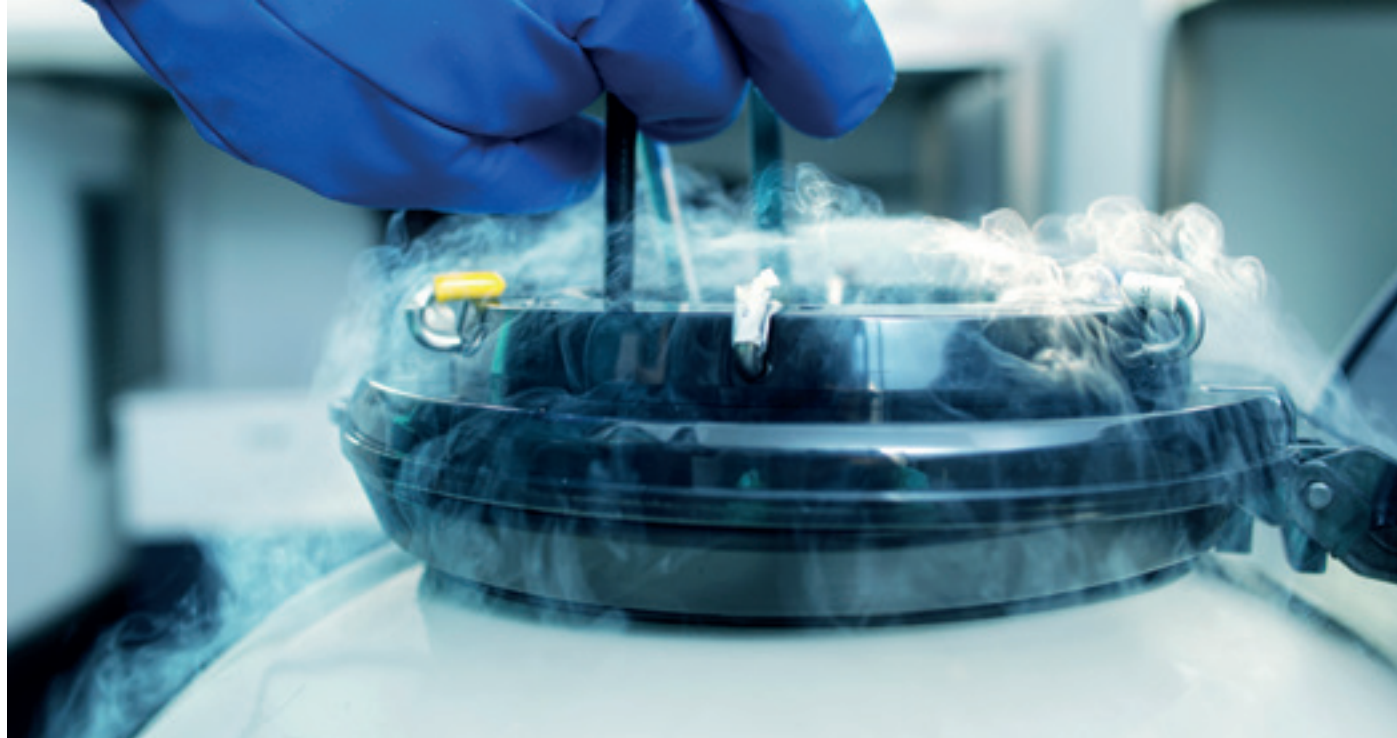


The Future of Blood



#PlasmaEverywhere

[veli.co](https://www.veli.co)



Foreword

Ireland stands at a pivotal point in the global landscape of medical research. Our hospitals, universities, and research institutions form an integrated ecosystem where clinical excellence and scientific innovation intersect every day. This national network, strengthened by close collaboration between clinicians, researchers, and patients, places Ireland in a unique position at the heart of European medical discovery. At the same time, Ireland has established itself as a European leader in the Life Sciences sector, a hub where academic insight and commercial capability combine to advance diagnostics, treatments, and technologies that improve lives worldwide.

At the core of this progress lies biobanking, the structured collection and stewardship of human tissue and health data that underpin all modern biomedical research. Without biobanks, the search for new therapies, biomarkers, and precision treatments would be immeasurably slower. Biobanking is not simply about storing samples; it is about enabling understanding, of disease, of resilience, and ultimately of recovery.

This **Biobanking in Ireland: Review and Directory 2027** is the first comprehensive publication of its kind, mapping the state of the nation in terms of biobanking infrastructure, expertise, and opportunity. It highlights the extraordinary breadth of work already underway across Ireland's hospitals and research centres, and it reflects the collective commitment of those who recognise that every donated sample represents a gift to future science.

Importantly, this Directory is not a static publication but a living resource that will continue to evolve, expand and reflect the changing landscape of biobanking across Ireland. The printed edition and the online version, available at biobankireland.com, together form an open platform for collaboration and discovery. We invite contributions from across the Island of Ireland, from established biobanks, new initiatives, and planned projects alike, to ensure that this resource grows in accuracy, depth and impact.

Through partnership, transparency, and shared purpose, Ireland can continue to lead by example in responsible biobanking and translational research, connecting the generosity of patients with the ingenuity of science to deliver better health outcomes for all.

Ciaran Flanagan

Managing Director & Co-Founder
Biobank Ireland Trust

Professor Eoin Gaffney

Medical Director and Co-Founder
Biobank Ireland Trust

1.0 Biobanks and Biobanking – Background

1.1 Introduction

The number and types of Irish biobanks have not been defined. This directory comprises brief details of Irish biobanks as provided to Biobank Ireland Trust. The Directory will be a valuable resource for biobanks and researchers who wish to collaborate. Details of these and additional biobanks will be added as they become available.

1.2 What is a Biobank/Biobanking?

A biobank collects, stores and manages human blood and tissue samples, together with health data, donated with patient consent, for use in future ethically-approved research projects. Biobanking facilitates studies of disease mechanisms, which may lead to new drug development and ultimately precision medicine (treating each patient according to their particular disease and genetic characteristics).

1.3 Key Components of Biobanking:

- **Sample Collection:** Biological samples and healthcare data are collected by biobank personnel with the consent of donors.
- **Sample Processing and Storage:** Samples are processed to ensure long-term preservation, and stored under controlled conditions.
- **Data Management:** A database records sample data, sample processing details, and health data.
- **Ethical and Legal Considerations:** Data privacy, confidentiality, and legal and ethical use of samples / data are critical aspects of biobanking.
- **Funding:** Biobanks are funded (for staff and processes) by research grants or institutional grants. Only the NCIB biobank and Northern Irish Biobank have received government funding. Sustainability is therefore a big challenge.



1.4 Biobank Ireland Trust

Biobank Ireland Trust is a registered charity, established in 2004 by Ciaran Flanagan and Professor Eoin Gaffney, to promote and support cancer biobanking in Ireland. In 2008, a Vodafone Ireland Foundation “World of Difference” award enabled Dr Blánaid Mee to work with the Trust, leading to the creation of the St James’s Hospital Cancer Biobank. This, together with the Beaumont / RCSI Biobank, formed the starting point of what became the Irish Biobank Network. Today, biobanks at Cork University Hospital, Galway University Hospital, St Vincent’s Hospital, Queen’s University Belfast and more recently as an associate network member Limerick University, participate under shared policies of patient consent and equitable access to samples, ensuring the highest ethical standards.

The Trust is overseen by a Board of Directors that includes representatives from cancer biobanks across these centres, along with cancer patient advocates. Their combined expertise ensures that patient voices are heard and that research is conducted responsibly. The purpose of the charity is to enable research that advances diagnosis, treatment, and care for people with cancer. Large-scale studies require many high-quality samples, and by linking biobanks across Ireland, researchers can more rapidly access the material and data they need to accelerate discovery.

Biobank Ireland Trust provides practical and financial support to its member biobanks through grants for essential laboratory equipment and staffing, access to a Biobank Information Management System (BIMS), and the promotion of standardised procedures and best practices. The Trust also operates a scientific internship programme, providing students with valuable hands-on experience in biobank operations, sample management and research support. In collaboration with its member university biobanks, the Trust organises the annual All-Island Biobanking Symposium, bringing together researchers, clinicians, policymakers, industry representatives and patient advocates to share knowledge, encourage collaboration and address the opportunities and challenges facing biobanking in Ireland. Through these initiatives, Biobank Ireland Trust is helping to strengthen the country’s biobanking infrastructure and advance medical research.

Cancer affects four in ten people during their lifetimes, and new treatments depend on understanding how tumours develop, spread, and respond to therapy. By providing carefully managed patient samples, Biobank Ireland Trust plays a vital role in connecting patients, clinicians, and researchers. This collaborative infrastructure underpins the national effort to make precision cancer medicine a reality in Ireland, while maintaining the trust of patients who generously donate their samples for the benefit of future generations.

1.5 Public Awareness

More than two thirds of Europeans have stated that they had never heard of biobanking. Those better informed tend to be concentrated in Northern Europe – in Sweden, Finland, and Iceland. In Ireland, awareness has been low, but when the benefits of biobanking are explained to patient donors, participation in the biobank is over 90%.

Public and patient advocate awareness is enhanced by media exposure and by multidisciplinary biobanking symposia. In gathering and maintaining public support, information and knowledge are key factors in the further development of biobank research perception. Knowledge is associated with trust, and if the biobank is embedded in an academic hospital or university, patient trust is more likely. Feedback to patient donors on research outcomes is also desirable, if feasible. Public and patient involvement (PPI) in formulating biobanking consent policies and procedures further enhances awareness and trust.

1.6 Regulation of Biobanking in Ireland

The Irish Health Research Regulations (HRRs) were introduced following the European Union (EU) General Data Protection Regulation (GDPR) in 2018. The HRRs describe specific supplementary regulatory requirements for research regarding governance, processes and procedures. Informed consent is the basis for use of samples and data, but for each new project using the same samples and data, a new application – with patient consent obtained a second time – must be made to the Health Research Declaration Committee.

Ireland's Human Tissue Bill (2024) regulates autopsies and transplants but makes no reference to human tissues which are removed during medical and surgical procedures. Though surplus to diagnostic requirements, these residual human tissues are an invaluable research resource especially when linked to clinical outcomes. Many millions of surplus human tissue samples are archived in pathology departments around the world where they have become the foundation stones of vital medical research.

The Tissue Bill does not address the subject of potential research using archived tissue and blood samples for developing precision medicine for patients. Currently, the accession and use of archived tissue – even if previously consented and approved by a Research Ethics Committee for research purposes – requires that an additional application be made under the Health Research Regulations (2018) for a Declaration from Ireland's Health Research Declaration Committee (HRCDC). An application must be made for each new research project wherein the use of such archived tissues is proposed. And, as above, patients are required to consent a second time.

Informed consent is a requirement in Irish health research, but the option of “in the public interest”, as in other EU countries, is not available. Furthermore, anonymisation of samples for confidentiality is not fully guaranteed: a patient's sample may be genetically analysed to reveal his / her identity or that of family members. Genetic tests on one family member may reveal information about the genetic status of other family members. At the point of consent taking, full information is not available to the patient or the researcher, and therefore the patient cannot be considered fully informed. Biobanks are basically a research resource and patient consent is needed for every research project. Patients have the right to withdraw their samples and data, although this may present problems for the researchers, depending on the stage at which the request is made. Finally, broad or blanket consent is unacceptable because patients have no knowledge of how their samples and data will be used in future research.

Feedback of clinically significant incidental findings unexpectedly discovered during the research should be communicated to the patient donor via their clinician. This differs from researchers re-contacting patients for consent.

The HRCDC has no role in the licensing, regulation or supervision of the storage, custody, accession, or deployment of tissues archived in Irish Pathology Departments. In the absence of a legislative framework to regulate the appropriate use of such tissues, there is a serious impediment to medical and scientific research in Ireland. Ireland remains in a most invidious position compared with Northern Ireland, and the rest of Europe in the competitive international scientific arena that depends on clinical research using archived human tissues. Importantly, our patients are missing out.

Before the Tissue Bill was enacted, representations were made to the Minister for Health and to The Minister for Further and Higher Education, Innovation and Science to indicate that Ireland's Human Tissue Bill should include a section on archived human tissues, with enforceable appropriate conditions, whereby archived human tissue could be legally released from pathology departments for use in medical and scientific research and be simultaneously compliant with the Health Research Regulations. Unfortunately the opportunity was not taken.

The HRRs and Human Tissue Bill have had a negative impact on Irish research because of the greatly increased administrative burden, potential patient upset at reconsenting, and narrow remit.

1.7 Biobanking, Clinical Trials and Precision Medicine

Clinical trials often have a biobanking component – monitoring clinical and laboratory data and examining samples of trial subjects and controls. The major aim of clinical trial related biobanking is to identify disease/trial-associated biomarkers (indicators of disease presence, progression or response to therapy).

The Potential of Precision Medicine: Biobanks are a research resource and have the potential to enable precision medicine, which has the following characteristics:

- 1. Personalisation:** Reflects the individual's "digital genome"
- 2. Predictiveness:** The ability to predict the risk of certain diseases based on "personal genome" information in combination with lifestyle data, age, sex, occupation etc.
- 3. Preventiveness:** Based on individualised risk prediction
- 4. Participation:** Active engagement of the individual concerned in proactively maintaining their health.

1.8 Biobanking in Other Countries

Biobanking in other countries is generally on a bigger scale than in Ireland. Funding and sustainability are common problems, particularly for smaller biobanks. The principles of biobanking are broadly similar to those in Ireland but the ethical and legal regulations are diverse. In addition, there are Best Practices for Biobanking, published by ISBER, the main academic society for the progress of biobanking. GDPR, although introduced with the intention of harmonising data protection regulations across the European Union, is interpreted in the other member states less rigidly than in Ireland. This can present an obstacle to sharing samples and patient data ethically and legally between biobanks in different countries. Compliance with legal requirements is often delegated to research ethics committees. Where ethical and legal harmony exist, dynamic interdisciplinary research collaborations can be formed, because of advances in computing and bioinformatics.

BBMRI is instrumental in establishing a network of biobanks around Europe. The expected impacts on medical research, drug development and health care are anticipated to be significant as such infrastructure will enable new scientific questions to be rapidly addressed with increasing efficiency. Ireland is not yet a member of BBMRI.

Sustainability is a challenge for biobanks everywhere. The level and consistency of funding determines a biobank's capability. The main biobank costs are staff and processes (recruiting participants, obtaining informed consent, and collecting samples and data), rather than freezer-related costs. Ideally, a biobank is integrated within a hospital clinical department such as pathology, sharing costs and personnel, and avoiding duplication of effort and resources. Biobanks typically recover part of their costs by charging an administrative fee for the release of samples and data to researchers.

Patients typically donate their samples and data altruistically, on the understanding that neither samples nor data will be sold, and that they themselves will not profit from the research. However, some biobanks such as the UK Biobank are considering profit-sharing methods, without excess profiteering.

The future will see increasing international collaboration, biobanking education, imaging, use of multi-omics data and Artificial Intelligence (AI). The holistic multi-omics approach to cancer facilitates the simultaneous examination of the complex interactions between genes, proteins, metabolites, and regulatory elements that drive cancer progression. Advancements in data analytics will aid in extracting meaningful insights from large-scale -omics datasets. Ethical data-sharing initiatives will direct biobanking and consequently precision medicine. Collaborative networks will facilitate data exchange, cross-validation of findings, and meta-analyses.

AI brings a range of advantages and opportunities, but also risks, that are relevant to biobanking. AI development lacks common aims and proven methods to translate principles into practice, or robust legal and professional accountability mechanisms. Thus, it is important to be cognisant of its ethical aspects and consequences to ensure that AI can work for the good of humanity, individuals, and societies.

1.9 Biopharmaceutical Companies and Biobanks

As the biopharmaceutical industry increasingly prioritises data-driven research and precision medicine, investment in biobanks has emerged as a strategic lever for accelerating innovation, improving research outcomes, and enhancing competitive positioning. Biobanks offer unparalleled opportunities for advancing biomedical research and therapeutic development.

1. Advancing Drug Discovery and Development:

One of the most compelling reasons for biopharmaceutical companies to invest in biobanks is the potential to significantly accelerate the drug discovery and development process. Biobanks house high-quality, well-annotated biospecimens that can be used to identify disease mechanisms, validate therapeutic targets, and model disease progression. This access to real-world, biologically relevant material enables more effective preclinical research and supports the design of better-informed clinical trials. As a result, drug candidates can move through the pipeline more efficiently, reducing both development timelines and associated costs.

2. Enabling Precision Medicine:

The integration of biospecimens with genomic, clinical, and lifestyle data enables researchers to identify patient subgroups based on molecular or phenotypic characteristics. This allows for more accurate patient stratification in clinical trials and the development of targeted therapies tailored to specific populations. By understanding who is most likely to benefit from a treatment, or who may be at risk of adverse effects, biopharmaceutical companies can improve trial success rates, minimise risks, and bring more personalised therapies to market.

3. Biomarker Discovery and Validation:

The discovery and validation of biomarkers is another major benefit associated with biobank access. Biomarkers are critical tools in modern drug development; they serve as indicators of disease presence, progression, or response to therapy. Biobanks provide the longitudinal datasets necessary to identify and validate such markers with statistical robustness. This supports the development of companion diagnostics, enhances clinical decision-making, and facilitates regulatory approval by offering measurable endpoints for efficacy and safety.

4. Access to Longitudinal Health Records:

Beyond traditional clinical data, biobanks often contain longitudinal health records that can be leveraged to generate real-world evidence. This data is increasingly important for regulatory bodies, payers, and healthcare providers seeking to understand how treatments perform outside controlled clinical settings. Real-world insights derived from biobanks can inform label expansions, post-marketing safety studies, and health technology assessments, all of which contribute to a therapy's long-term success and accessibility.

5. Collaborations with Academia, Government Bodies:

Biobank investment often comes with opportunities for collaboration with academic institutions, healthcare systems, and government bodies. These partnerships provide access to diverse and sometimes underrepresented populations, enabling broader research applicability and deeper insights into population health trends. Furthermore, they foster open innovation, allowing companies to co-develop intellectual property, share expertise, and publish impactful research, strengthening both scientific credibility and pipeline innovation.

6. Economic and Operational Efficiency:

In an industry where late-stage clinical failures are both common and costly, the use of biobank data allows companies to de-risk their development pipelines. Early identification of ineffective compounds or likely non-responders means that resources can be reallocated to more promising candidates. Additionally, improved trial designs, more precise recruitment strategies, and the use of adaptive methodologies made possible by biobank data contribute to more efficient clinical operations and lower R&D expenditures.

7. Advancing Rare Disease Research:

Biobanks are particularly valuable in the context of rare disease research, where patient numbers are limited and biological data is scarce. By aggregating data across regions and populations, biobanks make it possible to study rare genetic mutations, disease variants, and treatment responses in ways that would be logistically or financially prohibitive otherwise. This opens doors for developing orphan drugs and novel therapies in areas with high unmet need and lower commercial competition.

8. Financial Sustainability and Growth of Biobank:

Biobanks often face challenges related to long-term funding, particularly if they are run by academic institutions or public health organisations. Investments from biopharma companies provide critical financial support that can help biobanks expand their infrastructure, maintain operations, and invest in advanced technologies such as automation, AI-driven data analysis, or next-generation sequencing platforms. This type of funding helps ensure the long-term viability and scalability of the biobank.

9. Increased Visibility and Prestige of Biobank:

Partnering with well-known pharmaceutical companies enhances the visibility and credibility of a biobank. These collaborations often lead to peer-reviewed publications, presentations at international conferences, and recognition in industry reports. This visibility can attract further funding, new partnerships, and broader participation from researchers and donors.

10. Data and Sample Utilisation:

One of the key operational goals of a biobank is to ensure that its stored biological materials and data are actually used in meaningful research. Biopharma investment leads to greater utilisation of stored specimens, validating the biobank's purpose and improving its return on investment (especially for publicly funded initiatives). Increased utilisation also leads to more robust feedback loops, where the biobank receives data on how samples contributed to discoveries.

11. Technology Transfer:

Biopharma collaborations often come with knowledge exchange and technology transfer. Biobanks may gain access to advanced laboratory techniques, sample processing technologies, or data management tools. This can elevate the biobank's capabilities to handle complex workflows such as multi-omics integration, quality assurance, and biostatistical analysis, aligning the biobank more closely with cutting-edge scientific standards.

12. Regulatory Alignment, Best Practices:

Partnerships with industry can push biobanks to align more tightly with international standards in ethics, data privacy (e.g., GDPR, HIPAA), and biospecimen quality. This not only improves the reliability of their collections but also makes them more attractive for future collaborations, including global research initiatives and clinical trials.

13. Access to International Networks:

Being involved in public-private partnerships, like those seen in the FinnGen Project or UK Biobank, allows biobanks to integrate into international research ecosystems. These relationships open doors to further collaboration with academic researchers, regulatory agencies, and global health organisations.

1.10 Real-World Examples of Biobank Investment

FinnGen Project

Launched in 2017, the FinnGen project is a public-private partnership involving Finnish universities, the National Institute for Health and Welfare, and numerous pharmaceutical companies including AbbVie, AstraZeneca, Biogen, Celgene, Genentech, GSK, Janssen, Merck, Novartis, Pfizer, and Sanofi. The initiative aims to collect genetic and health data from 500,000 Finnish participants to support population-scale genomic research. This collaboration has led to the identification of hundreds of genetic associations with disease, directly influencing target discovery and development.

UK Biobank Genomic Initiative

In 2018, Regeneron, along with partners AbbVie, Alnylam, AstraZeneca, Biogen, and Pfizer, funded the sequencing of the UK Biobank's 500,000-participant cohort. The goal of this investment was to analyze genetic variants and link them to disease phenotypes, thus accelerating the identification of actionable drug targets. The data has since been used in numerous high-impact studies and has provided a foundation for precision drug development.

BiomeBank and Microbiome Therapeutics

BiomeBank, an Australian company, uses donor stool samples and microbial culturing techniques to develop living therapeutics targeting the gut microbiome. Their platform, Consortiome™, enables the scalable and consistent manufacturing of synthetic bacterial consortia. The company has focused on conditions like recurrent *Clostridium difficile* infections and is expanding into other gastrointestinal and immune-related diseases, showcasing how microbial biobanks can be used in novel therapeutic areas.

Audubon Bioscience's Crowdfunding Success

In 2022, Audubon Bioscience raised nearly \$220,000 via a crowdfunding campaign on MicroVentures. With over 440 individual investors, this campaign illustrated growing public and market interest in the biobanking space. The company focuses on providing ethically sourced, high-quality human biospecimens to researchers worldwide, supporting translational science and biomarker research in oncology, neurology, and rare diseases.

2.0 Current Biobanks in Ireland

Name of Biobank	Biological Samples and Research Focus
All Ireland Infectious Diseases Cohort Study (AIID Cohort)	Plasma, Serum, PBMC, DNA Pellets, Urine, Respiratory Specimens
Arthritis Research Coalition Biobank (ARC)	Rheumatoid Arthritis, Connective Tissue Diseases, Scleroderma, Gout
Blood Cancer Biobank Ireland (BCBI)	Blood Cancer (Live Leukemic Cells, Live Bone Marrow Stromal Cells, RNA and DNA isolated from Leukemic and Bone Marrow Stromal Cells)
Brain Tumour Ireland Biobank	Brain Tumour Tissue
Breast Cancer Biobank	Breast Cancer (FF Blocks, FFPE Blocks, DNA, RNA, Plasma, Serum, PDX-models)
Colorectal Cancer Biobank	Fresh frozen and formalin-fixed tumour and normal tissue samples
COVID-19 Immunology Biobank	Serial Time Points from SARS-CoV2
Dublin Brain Bank	Postmortem Brain Tissue
Epilepsy Biobanking	Cerebrospinal Fluid, Blood
Gastrointestinal Cancer Biobank SJH	Barrett's Oesophagus Biobank (Tissue Biopsies, Gastric Juices, and Bloods) Inflammatory Bowel Disease (IBD) Biobank (Tissue Biopsies, and Bloods) Lower Gastrointestinal Biobank (Tumour and Surrounding Normal Tissue, and Bloods) Pancreatic Biobank Upper Gastrointestinal Biobank (Tumour and Surrounding Normal Tissue, Bloods, Muscle, Liver, Lymph Node, and Fluid from the Chest Cavity)
Genetic Lung Disease Biobank	DNA and Blood Samples
Gynaecological Cancer Biobank SJH	Gynaecological Cancer
Haematology Biobank	Blood Cancer (Blood, Bone Marrow and Lymph Node)
INFANT Biobank	Biological Samples
Interstitial Lung Disease Biobank	Interstitial Lung Disease (DNA, Serum, Blood Cells and Whole Blood)
Irish Blood Transfusion Service (IBTS) Biobank	DNA
Irish DNA Atlas	Saliva
Irish Longitudinal Study on Ageing (TILDA) Biobank	Disease History, Sensory Function, Chronic Pain, Cognitive Function, Medical Screening, Global Cognition, Visual Memory, Processing Speed, Mood, Attention, Executive Function, Blood Pressure, Heart Rate, Macular Pigment Optical Density, Retinal Photograph, Venous Blood, Grip Strength, Heel Ultrasound, Height, Weight, Hip and Waist Size, Heart Rate Variability, Pulse Wave Velocity, Phasic Blood Pressure, Timed Up and Go, Gait Assessment, Balance, Visual Acuity, Contrast Sensitivity, Alcohol, Smoking, Physical Activity, Self-Related Mood Status, Live Events, Depression, Anxiety, Worry, Quality of Life, Stress Loneliness, Satisfaction, Social Connectedness, Current Medications, Incontinence, Weight Change over the Last 12 Months, Healthcare Utilisation

Current Biobanks In Ireland

Irish Kidney Gene Project Biobank	Blood, Urine, DNA, RNA, Kidney Tissue
Irish Prostate Cancer Outcomes Research (IPCOR)	Blood, Urine
Irish Prostate Cancer Research Consortium (IPCRC) Biobank	Prostate Cancer (Plasma, Serum, Urine, DNA, RNA, Fresh Frozen Tissue, FFPE Blocks and Tissue Slides)
Limerick Digital Cancer Research Centre (LDCRC)	Biobanking Initiative Cancer research, genomics, molecular profiling and associated clinical and research data.
National Irish COVID-19 Biobank (NICB)	Viral
Paediatric Biobank	Blood (Neonatal Encephalopathy, Preterm Birth, Down Syndrome Children, Traumatic Brain Injury, MISC and Control Term infants)
Paediatric Neuroblastoma Biobank	Tumour Tissues, Blood and Other Biomaterials from children with Neuroblastoma
Rare Kidney Disease and Vasculitis Biobank	Serum, Proteomic Grade Plasma, Urine, Leucocytes, RNA and DNA
St. James Hospital Histopathology Biobank	Breast and Colon Cancer (FFPE Blocks)
TAILORx Breast Cancer Tissue Bank	Breast Cancer
UCD-St Vincent's Healthcare Group Biological Resource Centre (BRC)	Human biological specimens collected for clinical and translational research. Facilities support frozen biological samples and specimens requiring liquid nitrogen storage.
University of Galway Biobank	Cancer Tissue, FFPE Blocks, Blood



Current Biobanks In Northern Ireland

Name of Biobank	Type of Samples Stored
Northern Ireland Biobank (NIB)	FFPE tumour and normal tissue blocks, plasma, serum, buffy coat, & whole blood predominantly from patients with breast, colorectal, gynaecological, prostate and lung malignancies. Additional bespoke malignant and non-malignant collections available on request, and the ability to provide cohorts of digitised images.



3.0 Details of Irish Biobanks

All-Ireland Infectious Diseases cohort study (AIID Cohort)

The AIID Cohort is a multicentre, prospective, longitudinal, observational cohort that enrolls consecutive adult subjects (>18 years old) attending hospitals services for management of infections. The AIID Cohort recruits from eleven clinical centres across Ireland. Subjects provide consent for use of routine clinical and laboratory data for research. In addition, subjects' consent to collection and biobanking of biological samples, including respiratory samples such as nasopharyngeal swabs.

Chief Investigator:
Professor Paddy Mallon

Email:
paddy.mallon@ucd.ie

Web: www.ucd.ie/infectionresearch/ourresearch/aiid/

Phone:
01 7161221

Address:
**University College Dublin,
School of Medicine,
Health Sciences Centre,
Belfield,
Dublin 4**

Arthritis Research Coalition Biobank

The Arthritis Research Coalition (ARC) Biobank was established by rheumatologists in Ireland to support research studies and clinical trial activities in this country. The primary aim of the Arthritis Research Coalition Biobank is to recruit patients with common rheumatic diseases and obtain bio samples such as blood and tissues that will underpin clinical research.

Faculty Head:
Professor Gerry Wilson

Web: www.ucd.ie/medicine/research/researchcentres/ucdcentreforarthritisresearch/research/arthritisresearchcoalitionbiobank/

Phone:
0818 252 846

Address:
**1 Clanwilliam Square,
Grand Canal Quay,
Dublin 2,
Ireland,
D02 DH77**



Blood Cancer Biobank Ireland (BCBI)

Blood Cancer Biobank Ireland is a national effort coordinating and standardising blood cancer biobanking activities. BCBI store high-quality, ethically collected blood and bone marrow samples from blood cancer patients. Selected samples are analysed by the latest genomic techniques providing the research community with invaluable data on what genetic mutations cause the cancer.

Memberships:

Biobank Ireland Trust

Email:

bcni@universityofgalway.ie

Web: www.bloodcancers.ie/bloodcancers/aboutbcni/

Phone:

091 49 3811

Address:

**BCNI,
Biomedical Sciences Building,
University of Galway,
University Road,
Galway,
Ireland**

Brain Tumour Ireland Biobank

The Brain Tumour Ireland Biobank (BTB) was founded in 2016 by Professor Jochen Prehn, alongside Dr Alan Beausang, Dr Jane Cryan, Dr Francesca Brett and Mr Stephen McNally.

Patients undergoing brain tumour surgery have been given the opportunity to consent to have their tissue included in the biobank, enabling RCSI and Beaumont Hospital investigators, as well as other national and international investigators to carry out cutting edge research, identify novel biomarkers and develop novel therapies for the treatment of brain tumours.

Email:

hbonner@rcsi.com

Web: www.rcsi.com/dublin/research-and-innovation/research/resources-and-facilities/biobank/brain-tumour-ireland-biobank

Studies Involved:

- **GlioResolve**
- **GlioBlastoma**
- **Advancing a Novel Therapeutic Strategy for a Newly Identified Subtype (TME-low) of GlioBlastoma**
www.precisioncancermedicinegroup.com/currently-funded-projects
- **EuroPDX**



Breast Cancer Biobank

The Breast Cancer Biobank at Beaumont RCSI Cancer Centre was set up by Professor Leonie Young and Professor Arnold Hill at RCSI in 2006 and was formally launched in 2010 by the then Minister for Health, Mary Harney TD.

The Breast Cancer Biobank is committed to openness and transparency in its regulatory procedures and the research it supports. The study is fully GDPR compliant and has HRDCD approval. Investigators interested in applying for tissue can complete a request form and submit to the Breast Cancer Biobank Committee along with relevant ethics and regulatory documentation for consideration.

The translational trial has >3,500 patients recruited to date. The trial is open in all eight designated national cancer hospitals with dedicated research nurses resourced in four sites. The biobank holds patient tissue, serial-blood and patient derived (PDX)-models with corresponding clinical data on 7,034 cases from each of the designated cancer hospitals which is monitored with an inventory and sample tracking software system.

Email:
breastcancerbiobank@rcsi.ie

Web: www.rcsi.com/dublin/research-and-innovation/research/resources-and-facilities/biobank/breast-cancer-biobank

Address:
Beaumont RCSI Cancer Centre,
Dublin 9

Studies Involved:

- SFI Strategic Partnership Programme: Precision Oncology Ireland
- Breast Cancer NOW, UK. Clinical assessment of PARPi in the treatment of breast cancer
- Breast Cancer Ireland. Targeted treatment for metastatic breast cancer
- Mapping molecular subtype specific alterations in breast cancer brain metastases identifies clinically relevant vulnerabilities
www.nature.com/articles/s41467-022-27987-5
- A clinically compatible drug-screening platform based on organotypic cultures identifies vulnerabilities to prevent and treat brain metastasis
www.link.springer.com/article/10.15252/emmm.202114552
- Comparative analysis of the AIB1 interactome in breast cancer reveals MTA2 as a repressive partner which silences E-Cadherin to promote EMT and associates with a pro-metastatic phenotype
www.nature.com/articles/s41388-020-01606-3

Colorectal Cancer Biobank

This biobank comprises fresh frozen and formalin-fixed tumour and normal tissue samples. An important aim of the tissue biobank is to ensure the availability of high quality, well annotated tissue specimens for research. It underpins ongoing and future translational research projects.

Email:
hbonner@rcsi.com

Web: www.systemsmedicineireland.ie/

Address:
RCSI Education and Research Centre,
Beaumont Hospital,
Dublin 9

Studies Involved:

- Utilising a multi-omics approach to profile tumour heterogeneity in colorectal cancer: Integrating bulk, spatial, single-cell transcriptome, and multiplexed imaging datasets to investigate characteristics of molecular subtypes with treatment responses in colorectal cancer. (PhD Student: Batuhan Kisakol)
- Immunogenicity in mucinous rectal adenocarcinoma (PhD Student: Dr Barry Mc Guire, MD)
- Investigating the Mechanisms of the Crosstalk Between Exposure to Environmental Toxins and Gut Microbiome Dysregulation in Colorectal Cancer and Cancer Stem Cell Maintenance and Proliferation: Experimental and Clinical Studies (PhD Student: Menatallah Samer Samy Ragab Rayan)
- Chemical imaging for rapid precision subtyping and recurrence prediction in colorectal cancer (CHEM-SENTIENCE) (PhD Student: M. Rifqi Rafsanjani)

COVID-19 Immunology Biobank

Faculty Head:
Dr. Niall Conlon

Email:
rkenny@tcd.ie

Web: www.tcd.ie/COVID-19immunology/biobank/

Phone:
01 8961627

Address:
Trinity Translational Medicine Institute,
Trinity Centre for Health Sciences Trinity College Dublin,
St James's Hospital,
Dublin 8,
Ireland

Dublin Brain Bank

The Dublin Brain Bank is a joint initiative between Beaumont Hospital and The Royal College of Surgeons of Ireland, under the directorship of consultant neuropathologist Dr Jane Cryan. Located in the Department of Pathology in Beaumont Hospital, the Dublin Brain Bank is a member of the RCSI Biobanking committee.

The aim of the Dublin Brain Bank is to collect and store post-mortem brain tissue, both frozen sections and formalin-fixed sections, to facilitate research into different neurological disorders, such as Alzheimer's Disease, Parkinson's Disease and Multiple Sclerosis. It has been in operation since 2008, currently storing in the region of 400 donated brains (mixed range of diseases, some without neurologic disease), with a further 200 registered living donors.

All applications for research are reviewed by the Dublin Brain Bank Tissue Advisory Board. This is a group of individuals from disciplines such as neuropathology, neurology, old age medicine, psychiatry, nursing and patient representatives. All studies must demonstrate ethical approval to this board before they can be considered to make use of this valuable resource.

Faculty Head:
Dr Jane Cryan

Email:
brainbank@rcsi.ie

Web: www.rcsi.com/dublin/research-and-innovation/research/resources-and-facilities/biobank/dublin-brain-bank%20

Phone:
+353 (0) 1 809 2706

Address:
**Dublin Brain Bank,
Beaumont Hospital,
Neuropathology Office,
Beaumont,
Dublin 9,
Ireland**

Epilepsy Biobanking

In partnership with hospitals across Ireland, RCSI has established and developed multiple different epilepsy-related biobanks. These include the Genetics of Epilepsy biobank, designed to facilitate research on the genetic causes and treatment of epilepsy, the Epilepsy Surgical Tissue biobank, which supports research on the cellular and molecular basis of epilepsy and the effects of seizures on the brain, and the Epilepsy Biomarkers study, designed to discover and validate circulating molecules which can help with diagnosis. These collections have facilitated major breakthroughs in our understanding of epilepsy, discoveries that have impacted how the condition is diagnosed and treated. This improved our ability to identify specific genetic changes that cause epilepsy and develop advanced cell therapies.

Through supporting and participating in these biobanks, people with epilepsy and other members of the public can contribute in a very tangible manner to improving our understanding of these conditions and ultimately improving quality of life and care.

Faculty Head:
Amaya Sanz Rodriguez

Email:
amayasanzrodriguez@rcsi.ie

Web: www.rcsi.com/dublin/research-and-innovation/research/resources-and-facilities/biobank/epilepsy-biobanking

Phone:
+353 (0) 1 402 5139

Address:
**SFI FutureNeuro Research Centre,
RCSI,
Dublin 2**

Gastrointestinal Cancer Biobank SJH

The biobanks store and conduct research focusing on understanding conditions (both benign and cancerous) of the gastrointestinal tract. Patients presenting to the SJH for an endoscopy procedure, surgery or chemotherapy sessions are invited to take part in the respective biobank. This involves a doctor/member of the biobank research team discussing the research with the patient, and if the patient is willing to take part, the patient will sign a consent form and donate samples.

There are 5 Gastrointestinal (GI) Biobanks based in the Department of Surgery:

Upper Gastrointestinal Biobank

This biobank collects samples from patients with a cancer of the oesophagus or stomach, and from non-cancer patients

Upper GI Biobank Manager:

Ms Meghana Menon

Lower Gastrointestinal Biobank

This biobank collects samples from patients with a cancer of the bowel or rectum, and from non-cancer patients (patients with a benign gastrointestinal disease). These samples include tumour and surrounding normal tissue, and bloods.

Barrett's Oesophagus Biobank

The Barrett's Oesophagus Registry and Biobank was established in 2009 to meet the Oesophageal Cancer Fund's aim of preventing oesophageal cancer through early detection. It collects tissue and blood samples from consenting patients.

Barrett's oesophagus is a condition that is caused when persistent or long-term acid reflux damages the inner lining of the oesophagus which can cause abnormalities in cells that line the oesophagus. Although the condition itself is not cancerous, it is known as a pre-cancerous precursor. Since 2009, over 9,000 patients have been recorded on the National Barrett's Registry in Ireland.

Inflammatory Bowel Disease (IBD) Biobank

This biobank collects samples from patients with IBD, an inflammatory condition of the large intestine.

Pancreatic Biobank

This biobank collects samples (both cancerous and pre-cancerous) from patients undergoing investigations for pancreatic conditions.

Barrett's Biobank Manager:

Mr Cian Gargan

Faculty Head:

Professor Jacintha O'Sullivan

Web: www.tcd.ie/medicine/trinity-st-jamess-biobank-network/biobank-types/gastrointestinal-biobank/

Address:

**Trinity Translational Medicine Institute,
Trinity Centre for Health Sciences Trinity College Dublin,
St James's Hospital, Dublin 8, Ireland**

Current Academic Projects under the Upper & Lower GI Biobank

- Investigation of the role of microRNA in the treatment response of gastro-oesophageal cancer
- Organoids Programme with Legend Biotech
- Breaking the obesity-cancer link; a theranostic role for FKBL in modulating immunometabolism across disease progression in oesophageal adenocarcinoma
- The effects of electroporation on the secretome of human explants in GI cancers (pan GI approach: upper and lower GI)
- Elucidating the immune, metabolic and genomic characteristics in young onset gastroesophageal cancer
- Boosting oxygen diffusion in the radioresistant oesophageal tumour microenvironment to improve radiation response
- To evolve the personalised active cell therapy paradigm – HEALD Consortium
- Elucidating the tumorigenic effects of fractalkine and its therapeutic utility in oesophageal adenocarcinoma.
- Identifying novel aspects of immune checkpoint pathways to improve response rates in upper GI cancer
- Unlocking the immune tumour microenvironment to improve therapeutic outcomes in oesophageal cancer
- Developing tumour-homing NK cell therapies for obesity-associated cancer
- Investigating the immunomodulatory influence of blood derived extracellular vesicles (EVs) in cancer patients

Current Academic Projects under the Barrett's Biobank

- Investigating the effect of calcium electroporation in the Barrett's Oesophagus tissue microenvironment

Current Academic Projects under the IBD Biobank

- Investigating the clinical and biochemical biomarkers of response to biologic therapies in Inflammatory Bowel Disease
- Looking at the role of immune-metabolic assessment in the ulcerative colitis tissue microenvironment

Current Academic Projects under the Pancreatic Biobank

- Multi-omic analytics for cancer risk stratification in patients with pancreatic cystic lesions
- PROPITATE – Biofluid prognostic for prediction of development of pancreatic cancer
- Immunophenotyping pancreatic cystic lesions for cancer risk stratification

Genetic Lung Disease Biobank

The Genetic Lung Disease Biobank started at the Irish Centre for Genetic Lung Disease at RCSI Beaumont Hospital in 2013. This biobank is helping researchers to find out why some people develop lung disease and others do not. Cigarette smoking is the major risk factor for the development of lung diseases such as chronic obstructive pulmonary disease (COPD). Yet many unanswered questions remain. We cannot explain why some smokers develop lung disease and other smokers do not. We cannot explain why a small number of people who never smoke develop serious lung disease.

We know other genetic factors must be important for the development of lung disease and the search for these factors is ongoing. In Ireland we have the opportunity to perform research of the highest quality due to our small size and unique genetic makeup. Our aim is to build a collection of biological material (DNA and blood samples) from individuals with and without lung disease and from people who smoke and those who have never smoked, known as a 'biobank'.

This biobank is a vital tool for the study of lung disease and is laying the foundations for future research into genetic lung disease. The clinical importance of this biobank is underlined by the fact that up to 300,000 people may be suffering from COPD on the island of Ireland. If we can discover new genetic risk factors involved in the development of lung diseases like COPD, we can start to design new diagnostic tests and treatments for those affected.

By taking part in this biobank, you can help us to improve our understanding of lung disease and ultimately improve diagnosis and treatment.

Faculty Head:

Dr Tomás Carroll

Email:

tcarroll@rcsi.ie

Web: www.rcsi.com/dublin/research-and-innovation/research/resources-and-facilities/biobank/genetic-lung-disease-biobank

Phone:

+353 (0) 1 809 3876

Address:

**RCSI Education and Research Centre,
Beaumont Hospital,
Dublin 9**

Gynaecological Cancer Biobank SJH

The Gynaecological Biobank was set up in 2004 to support research between Trinity College Dublin and St James's Hospital. Patients attending the gynaecology service who are scheduled for surgery and/or chemotherapy may be invited by their doctor to sign a consent form to donate samples and healthcare data to the biobank.

The biobank collects samples from all the gynaecological cancers and also from non-cancer patients; these include ovarian cancer and benign ovarian disease, endometrial cancer and benign endometrial disease, cervical cancer, vulva cancer and vaginal cancer. The biobank stores bloods, excess tissue from surgery, urine and ascites fluid (fluid produced by some ovarian cancers). The research focuses on developing new tests and better treatments for cancer.

Faculty Head:

Dr. Sharon O'Toole

Email:

cancerbiobanks@stjames.ie

Web: www.tcd.ie/medicine/trinity-st-jamess-biobank-network/biobank-types/gynaecological-biobank/

Address:

**Trinity Translational Medicine Institute,
Trinity Centre for Health Sciences Trinity College Dublin,
St James's Hospital,
Dublin 8,
Ireland**

Studies Involved:

- Examining the role of a protein KFBPL in response to treatment in ovarian cancer
- Examining whether spectroscopy can help diagnose ovarian and endometrial cancer earlier
- Examining the role of bacteria (microbiome) in response to treatment on ovarian cancer by assessing types and number of bacteria in ovarian tissue
- All Ireland Cancer Liquid Biopsy Consortium (CLuB)
- Investigating the role of NKAPL in acquired chemoresistance in high-grade serous ovarian cancer

Haematology Biobank

The Trinity St James's Hospital Haematology Biobank collects and stores tissue samples and health information (data) donated by patients who may have a blood disorder for use in approved research studies. The Haematology Biobank is jointly managed by St. James's Hospital and Trinity College Dublin.

The biobank samples and data are used for research carried out in The John Durkan Leukaemia Laboratories based in the Department of Haematology in the Trinity Translational Medicine Institute at St James's Hospital. Our researchers work closely with collaborators in St James's Hospital, Trinity College and other hospitals and universities in Ireland and abroad. We also collaborate with commercial pharmaceutical companies and biotechnology companies.

All research projects using biobank samples must have ethical approval from an independent research ethics committee. Researchers who do not work for Trinity College Dublin or St James's Hospital must sign a legal agreement which includes obligations to keep the information and samples secure. All biobank samples are coded and only biobank personnel will have access to patient identifiers. All samples and patient information in the Haematology Biobank are treated with the highest standards of security and confidentiality, in accordance with data protection law.

Email:
cancerbiobanks@stjames.ie

Web: www.tcd.ie/medicine/trinity-st-jamess-biobank-network/biobank-types/haematology-blood-cancers-biobank/

Address:
Trinity Translational Medicine Institute,
Trinity Centre for Health Sciences Trinity College Dublin,
St James's Hospital,
Dublin 8,
Ireland

Studies Involved:

- Establishing 3D tumour platforms for validation of pipeline programs
- Development of a Bioanalytic Platform to monitor immune reconstitution after Allogeneic Haematopoietic Stem Cell Transplantation and CAR T cell therapy

INFANT Biobank

These biobanks are part of Cork University Hospital and adhere to and exceed the requirements of the International Society for Biological and Environmental Repositories (ISBER) best practices. They also observe the Molecular Medicine Ireland Guidelines for Standardised Biobanking and OECD Guidelines for Human Biobanks and Genetic Research Databases. The protocols developed by INFANT are acknowledged internationally as the gold standard for biobanking. The biobank has a capacity for up to 4 million samples.

Faculty Head:
Professor Geraldine Boylan

Email:
infant@ucc.ie

Web: www.infantcentre.ie/who-we-are-2/our-facilities/infant-biobank/

Phone:
+353(0)21 4205082

Address:
**Paediatric Academic Unit,
Cork University Hospital, Wilton, Cork, Ireland**

Studies Involved:

- STOP-AD
- CARE
- AUTISM
- COWS
- CAPTURE
- SPINDLE
- Kilimanjaro Ultra 2020
- TEAAMs
- Science4SightLoss
- ImPRINT
- BASELINE
- COSGOD
- CATePILLar
- AI-4-NICU
- Delphi
- Early Detection & Intervention for Cerebral Palsy in Ireland
- IDEA
- MONiToR
- NeuroBell
- NIOMI
- Neonalysis
- NOAH
- SYNAPSE
- FIRSST
- Opt-I-Mum
- RE:CURRENT
- IRELANd

Interstitial Lung Disease Biobank

The Interstitial Lung Disease (ILD) Biobank at RCSI and Beaumont Hospital is a collection of biological samples (DNA, serum, blood cells and whole blood) donated by patients with ILD.

Interstitial lung diseases are a group of scarring lung disease otherwise and is known as pulmonary fibrosis. The most common form is Idiopathic Pulmonary Fibrosis or IPF, but it can be associated with environmental exposures and connective tissue diseases such as scleroderma and rheumatoid arthritis. This group of diseases affects people of all ages who often have a family member with a similar lung disease.

The ultimate goal of the ILD Biobank is to discover the underlying genetic and environmental risk factors, as well as identify potential treatment targets for ILDs worldwide.

Our ongoing study is particularly interested in improving our understanding of how our genes and the environment in which we live interact and influence the cause and development of ILD, and how patient's genes influence the progression of ILDs. In most cases the cause of pulmonary fibrosis is unknown, called idiopathic pulmonary fibrosis (IPF). We suspect that the cause of IPF is a combination of genes that we inherit and the environment in which we live in.

People who agree to participate in our study and Biobank donate a blood sample to facilitate sequencing of DNA, RNA and to measure other substances in the body that can be associated with ILD. Analysing and sharing these samples with approved collaborators allows us to better understand how the disease happens and how it affects individual patients.

Faculty Head:
Professor Killian Hurley

Email:
killianhurley@rcsi.ie

Web: www.rcsi.com/dublin/research-and-innovation/research/resources-and-facilities/biobank/interstitial-lung-disease-biobank

Address:
**RCSI Education and Research Centre,
Beaumont Hospital,
Dublin 9**

Irish Blood Transfusion Service (IBTS) Biobank

The Irish Blood Transfusion Service (IBTS) make available purified DNA and associated GWAS data from 2000 healthy donors for research use.

They distribute this control DNA material to researchers at nominal charge for ethically approved research projects. The buffy coat collection has been made possible courtesy of the Irish Blood Transfusion Service (IBTS).

The DNA collection consists of high quality human genomic DNA, prepared by Autopure (Qiagen). Each sample is from a single individual and each sample comes with the age and gender data of the donor. They endeavour to fulfil sample requests based on age and gender as well as possible.

The DNA comes available as a 100ng/uL solution in 100uL of TE Buffer (10ug amounts) in separate screw-cap ampoules. The ampoules are shipped frozen in 100-tube boxes (Sarstedt).

Email:
ttmi@tcd.ie

Phone:
+353 1 896 3268

Address:
**Trinity Translational Medicine Institute,
Trinity Centre for Health Sciences Trinity College Dublin,
St James's Hospital,
Dublin 8**

Irish DNA Atlas

The Irish DNA Atlas is a population DNA study of the island of Ireland. Participants of the study provide a saliva sample (from which we can extract genetic data) and genealogical data (which provides recent ancestry information). Analysis of this genealogical information by the Genealogical Society of Ireland allows the selection of participants whose eight great-grandparents have all been born within 50km of each other – meaning that the recent genetic and genealogical ancestry each Irish DNA Atlas participant is representative of a specific location within Ireland.

The Irish DNA Atlas is a biobank designed to facilitate research into the population genetics and history of Ireland. Information about a population's past, such as population size, historical migrations and communities within the population, can leave footprints in the collective genome of that population. Studying the current genetic variation can reveal these footprints and shed light on past events. The footprints of this history can also impact the frequency of particular genetic diseases in a population. Therefore, a greater understanding of a population's genetic diversity and history can aid the research into the genetics of disease in a population.

The second aim of the Irish DNA Atlas project is to provide a reference of Irish genomes which can be compared to subsets of individuals experiencing a particular disease. By comparing the DNA profiles of groups of 'cases' (people who experience the disease) and 'controls' (people who do not) it is possible to identify parts of our DNA that predict disease. Identifying such genetic markers can help improve diagnosis and the nature of future treatments.

Faculty Head:
Professor Gianpiero Cavalleri

Email:
gcavalleri@rcsi.com

Web: www.rcsi.com/dublin/research-and-innovation/research/resources-and-facilities/biobank/irish-dna-atlas

Phone:
+353 (0)1 402 2146

Irish Longitudinal Study on Ageing (TILDA) Biobank

There is a lack of social, economic and health information on older persons in Ireland. TILDA aims to collect and store information relating to older persons in Ireland to aid in determining the health status and needs of older people, to identify the biological and environmental components of "successful ageing". This data contains information on the Irish population aged 50 years or above. The data as collected using a Computer Assisted Personal Survey, a Self-Completed Questionnaire as well as a Health Assessment.

Faculty Head:
Regius Rose Anne Kenny

Email:
tilda@tcd.ie

Web: www.tilda.tcd.ie/about/

Phone:
+353 1 896 2509

Address:
**Trinity Central,
152-160 Pearse St,
Dublin 2,
D02 R590,
Ireland**

Studies Involved:
TILDA

Irish Kidney Gene Project Biobank

In partnership with Beaumont Hospital Department of Nephrology, RCSI has developed a biobank of blood, DNA and kidney tissue.

Samples of blood are drawn from patients attending renal clinics and who have been part of the Irish Kidney Gene Project (IKGP). The IKGP is a project established to attempt to provide a molecular diagnosis to patients attending renal clinics with evidence of kidney disease. Patients who agree to participate donate a blood and/or a urine sample to facilitate sequencing of DNA, RNA and to measure other substances in the body that can be associated with kidney disease. Sometimes patients provide samples using nose or mouth (sputum) swabs. In addition to blood, urine and sputum samples we also collect tissue samples from patients that are undergoing either a percutaneous kidney biopsy of a kidney or removal of a kidney for clinical reasons. Analysing these samples allow us to determine a lot about the underlying type of kidney disease.

Faculty Head: **Dr Elhussein Elhassan**

Email: Irishkidneygeneproject@beaumont.ie

Web: www.rcsi.com/dublin/research-and-innovation/research/resources-and-facilities/biobank/irish-kidney-gene-project-biobank

Irish Prostate Cancer Outcomes Research (IPCOR)

IPCOR created the first national prostate cancer registry in Ireland. This registry contains clinical and quality of life data on 6,816 men who were diagnosed with prostate cancer and treated in 16 hospitals around Ireland between 2016 and 2020.

The IPCOR registry has now returned in 2024 as a clinical quality and outcomes registry to collect longitudinal clinical data on men undergoing diagnosis and treatment for prostate cancer. Along with clinical data and quality of life measures including patient reported outcomes measurements (PROMs), IPCOR has also established a biorepository for blood and urine samples of men who consent to participate, as well as access to their routine prostate tissue.

The IPCOR dataset is being used to answer several policy and research questions regarding how men are diagnosed with prostate cancer, how they are treated, how those treatments affect them and how they do in the longer term. The second phase of IPCOR has allowed the creation of an infrastructure for both clinical and translational research processes.

Faculty Head: **Professor David Galvin**

Email: ipcor@ucd.ie

Web: www.ipcor.ie

Limerick Digital Cancer Research Centre (LDCRC)

IPCOR created the first national prostate cancer registry in The Limerick Digital Cancer Research Centre at the University of Limerick is a multidisciplinary research initiative dedicated to improving the understanding of cancer and developing new approaches to its prevention, diagnosis and treatment.

Established in 2021, the Centre brings together expertise in cancer biology, genomics, bioinformatics, data science and artificial intelligence. Its research programme seeks to integrate biological and clinical information with advanced computational technologies to support discoveries in cancer research and precision medicine.

The Centre works across academic and clinical disciplines, including collaboration with cancer researchers and clinicians at University Hospital Limerick.

Research Lead: **Professor Aedin Culhane**

Clinical Lead: **Professor Ruth Clifford**

Email: ldcrc@ul.ie

Web: www.ul.ie/lcrc

Irish Prostate Cancer Research Consortium (IPCRC) Biobank

The Prostate Cancer Research Consortium (PCRC) is a co-ordinated group of researchers and clinicians from universities and hospitals in Ireland whose aim is to improve the diagnosis and treatment of prostate cancer by engaging in biomarker discovery and validation research. The PCRC has established a prostate cancer biobank that collects biological samples and comprehensive clinical information collected at time of recruitment and subsequent follow ups from prostate cancer patients undergoing Transurethral resection of the prostate (benign disease) or radical prostatectomy. This disease based bioresource with potential for reuse has recruited ~900 patients and collected >10,000 tissue, serum, plasma, urine, DNA and RNA samples.

The biobank uses a Biobank Information and Management System (BIMS) which is a central data repository for the sample, clinical and research data. Research nurses upload de-identified clinical, sample and pathology data and PCRC researchers upload research data from biological assessment.

Faculty Head:

Professor William Watson

Email:

William.watson@ucd.ie

Phone:

+353 91 524411

The National Irish COVID-19 Biobank (NICB)

NICB is a collaborative initiative to establish a health research biobank which collects biological samples along with healthcare data, donated by people to facilitate research into COVID-19. The NICB is an essential new component of Ireland's response to COVID-19, in which the Health Research Board (HRB) has been playing a key role since the onset of the pandemic in 2020. Supported by the HRB at the request of the Department of Health, the NICB will ensure that COVID-19 samples and associated clinical data are collected in a coordinated manner, and that researchers can access this material using a mechanism that complies with safety, quality, and other international best practices and standards. This will allow more opportunity for research and innovation to increase our understanding of COVID-19 and better prepare us for future emergencies.

Web: www.nrecoffice.ie/committees/nicb-rec/

Paediatric Biobank

The purpose of this biobank is to collect samples from affected preterm and term infants, school-age children and control groups to establish a repository of samples that can be used in further studies to help us better understand the course of inflammation and development in infants and children. Serum is extracted from whole blood and stored in the biobank. Using Meso-Scale Technology multiple proteins can be identified in minute quantities of serum, which can be used to develop new adjunctive therapies for neonatal brain injury and preterm development. Scientists can also use the whole blood to extract RNA and immune cells to analyse the gene expression of these infants and identify their immune-cell phenotypes, respectively, with a view to understanding the pathways of inflammation better.

Faculty Head:

Professor Eleanor Molloy

Web: www.tcd.ie/medicine/trinity-st-jamess-biobank-network/biobank-types/paediatric-biobank/

Address:

Trinity Translational Medicine Institute,
Trinity Centre for Health Sciences Trinity College Dublin,
St James's Hospital,
Dublin 8,
Ireland

Rare Kidney Disease and Vasculitis Biobank

The Rare Kidney Disease (RKD) Registry and Biobank was established in 2012 to facilitate research into the rare auto-immune condition ANCA-associated vasculitis (AAV) in Ireland. Development of a networked collaboration across all the major hospital sites in the country enabled effective recruitment of patients presenting with the disease, and the capture of their clinical data and linked blood Vasculitis (RIV) Registry and Biobank, contributing data to the RITA registry. Hosted within the School of Medicine at TCD, the Registry and Biobank today comprises over 1000 vasculitis recruits, many of whom have been tracked longitudinally, and represents one of the largest bioresources of its kind globally. The Principal Investigator is Professor Mark Little.

Memberships:

www.ern-rita.org

Faculty Head:

Professor Mark Little

Email: rkdbiobank@tcd.ie

Web: www.tcd.ie/medicine/thkc/our-research/rita-ireland-vasculitis-riv-registry-and-biobank/

Phone: +353 1 896 4810

Address:

**The RITA-Ireland (RIV) Registry and Biobank,
Trinity Health Kidney Centre,
Lab 1.06,
Trinity Translational Medicine Institute,
St James' Hospital,
Dublin 8,
D08 W9RT,
Ireland**

Number and breakdown of Samples:

Biological samples (serum, proteomic grade plasma, urine, leucocytes, RNA and DNA) are processed and stored centrally in the Trinity Translational Medicine Institute in temperature monitored freezers, with archiving managed using industry standard Freezerworks software. All aliquots are bar coded and mapped to the freezer location. Linked clinical data is recorded by local clinicians and research nurses on a web-assessed database on the REDCap platform developed and managed by Trinity Research IT. Every aliquot has a clearly documented provenance.

St. James Hospital Histopathology Biobank

St James's Hospital Histopathology Biobank is part of the Trinity St. James Biobank Network which is a working group of representatives from biobanks in Trinity College Dublin and its associated hospitals: St James's Hospital, The Coombe Hospital, Tallaght University Hospital, Children's Health Ireland at Crumlin and a collaborating hospital, Beaumont Hospital.

St. James Hospital Histopathology Biobank (SJHBB) is a non-profit biorepository for breast and colon cancer. They biobank tumours and normal samples which are used in ethically approved cancer research studies. Tissue samples and pathology data are collected from consenting patients.

Clinical Lead:

Dr Richard Flavin

Laboratory Manager:

Fiona Kearney

Email: biobank@stjames.ie

Web: www.stjames.ie/cancer/research/biobanknetwork/histopathologybiobank/

Phone: +353 1 410 3336

Address: James's Street, Dublin 8, D08 NHY1, Ireland

St Vincent's University Hospital – Biological Resource Centre

The UCD–St Vincent's Healthcare Group Biological Resource Centre (BRC) is a specialist facility supporting clinical and translational research through the collection, processing, storage and quality control of human biological samples. Based at St Vincent's University Hospital in Dublin, the Centre provides essential biobanking infrastructure to support research into disease mechanisms, diagnosis and treatment.

The Centre offers dedicated biobank facilities equipped with continuous temperature monitoring, ultra-low-temperature freezers, liquid nitrogen storage and a Laboratory Information Management System (LIMS). A barcode-based identification and tracking system supports the reliable management and traceability of biological specimens.

Working within the research environment of St Vincent's University Hospital and University College Dublin, the Centre supports the use of biological samples in medical research. Its facilities contribute to the wider clinical and translational research infrastructure available to researchers and clinicians.

Senior Pathology:

Professor Aurélie Fabre

Research Focus: **Clinical and translational research, pathology and biological specimen management.**

Email: afabre@svhg.ie

Web: www.stvincents.ie/research-and-education/our-research-centres/biological-research-centre/

TAILORx Breast Cancer Tissue Bank

An exploratory, translational, non-interventional and multi-centre biobank. The aim of the development of such a biobank is to identify potential biomarkers that are indicative of disease relapse

Faculty Head:

Dr Maccon Keane

Web: www.universityofgalway.ie/findatrial/tailorxbio/

University of Galway Biobank

The Discipline of Surgery at the Lambe Institute for Translational Research is home to the University of Galway Cancer Biobank.

They collect and store biological samples, e.g., blood and tissue, from consenting patients and healthy volunteers.

Email:

info@universityofgalway.ie

Web: www.universityofgalway.ie/cancercentre/biobank/

Phone:

+353 91 524411

Address:

**University of Galway,
University Road,
Galway, H91 TK33,
Ireland**

Northern Ireland Biobank

The Northern Ireland Biobank was established in 2011 to facilitate translational biomarker research, primarily in Northern Ireland but also further afield. We are based in the Patrick G Johnston Centre for Cancer Research (PGJCCR), Queen's University Belfast (QUB) and are core funded by The Research and Development Division of the Health and Social Care Public Health Agency (HSC R&D) in Northern Ireland.

Although initially established as an operational partnership between QUB and the Belfast Health and Social Care Trust (BHSC) focused on cancer biobanking, NIB has evolved to become a regional research infrastructure creating access to biospecimens across Northern Ireland Health and Social Care Trusts for release to local researchers as well as those further afield.

In addition to cancer biobanking, NIB has also facilitated several non-cancer related collections. FFPE tumour and normal tissue blocks, plasma, serum, buffy coat, & whole blood predominantly from patients with breast, colorectal, gynaecological, prostate and lung malignancies. Additional bespoke malignant and non-malignant collections available on request, and the ability to provide cohorts of digitised images.

Email:

nibiobank@qub.ac.uk

Web: www.nibiobank.org.uk

Phone:

028 9097 2915

Address:

**Queens University Belfast,
97 Lisburn Road,
Belfast,
BT9 7AE**

About This Publication -

Published by Biobank Ireland Trust

Biobanking in Ireland: Review and Directory 2027 is published by Biobank Ireland Trust, a registered Irish charity dedicated to supporting and advancing biobanking, medical research and scientific collaboration across the island of Ireland.

The publication has been made possible through the generous support of our donors, sponsors and advertisers. We extend our sincere thanks to all those who have contributed to its production, and to the biobanks, hospitals, universities and research institutions that have provided information for inclusion.

Annual Publication and Distribution

Biobank Ireland Trust intends to publish an updated printed edition of the Biobanking in Ireland Review and Directory annually.

The Directory will be distributed to biobanks throughout the Republic of Ireland and Northern Ireland, relevant government departments and agencies, major hospitals, universities and research institutions, as well as pharmaceutical, biotechnology and life sciences companies.

Our objective is to establish the Directory as an authoritative reference resource that promotes awareness of Ireland's biobanking capabilities, encourages collaboration and supports the development of medical research nationally and internationally.

Online Directory

An online version of the Directory will be available at www.biobankireland.com

This digital resource will be reviewed quarterly and updated where required to reflect new biobanks, changes in contact information, research activities and other relevant developments.

We welcome submissions from established and emerging biobanks across the island of Ireland to ensure that the Directory remains as comprehensive and accurate as possible.

Advertising and Supporting the 2028 Edition

Organisations wishing to advertise in, sponsor or otherwise support the **2028 edition** of the Biobanking in Ireland Review and Directory are invited to contact:

Geoff Kane

Chief Administrative Officer
Biobank Ireland Trust

Email: info@biobankireland.com

Mobile: 087 388 9963

Website: www.biobankireland.com

Your support will help us continue to develop and distribute this important resource, connecting Ireland's biobanking community with the wider healthcare, research and life sciences sectors.

Biobank Ireland Trust

Registered Charity Number (CHY): 16085
Charities Regulatory Authority Number: 20057176

Notes

Handwriting practice area with 20 sets of dotted lines for tracing on a lined background.



For a downloadable version of
this directory please scan the
QR code above or go to

[https://biobankireland.com/
biobank-directory/](https://biobankireland.com/biobank-directory/)



BIOBANK
IRELAND TRUST





**Comprehensive portfolio of biobanking solutions
including hardware (manual and automated) with local
support, software and consumables**

 **Genepoint**



 **AltemisLab**



Labplan

Allenwood Campus, Station Road,
Allenwood North
Naas W91 A4CP

